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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL BRIEF FOR THE APPELLANTS

Ex parte Harri Korpela et al.

FORMING A COMMUNICATION NETWORK

Serial No. 10/028,950
Appeal No.: Not yet assigned
Group Art Unit: 2619

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Peter Flanagan
Peter Flanagan
Attorney for Appellants
Reg. No. 58,178

SQUIRE, SANDERS & DEMPSEY LLP
8000 Towers Crescent Drive, 14th Floor
Tysons Corner, VA 22182-2700

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Appellants:

Confirmation No.: 5366

Harri Korpela et al.

Appeal No.: Not yet assigned

Serial Number: 10/028,950

Group Art Unit: 2619

Filed: December 18, 2001

Examiner: Steven H. D. Nguyen

For: FORMING A COMMUNICATION NETWORK

APPEAL BRIEF

January 7, 2008

I. INTRODUCTION

This is an appeal from the final rejection set forth in an Office Action dated September 4, 2007, ("the Office Action") finally rejecting claims 21-47, all of the claims pending in this application, as being unpatentable. A Notice of Appeal and Pre-Appeal Brief Request for Review were timely filed on November 1, 2007. A Notice of Panel Decision was mailed December 7, 2007, permitting the appeal to continue. The enclosed Appeal Brief is being timely submitted within one month of the mailing of the Notice of Panel decision. Because the rejections are in error, it is respectfully requested that the rejections be reversed.

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II. REAL PARTY IN INTEREST

The real party in interest in this application is Nokia Corporation, of Keilalahdentie, Finland, by virtue of an assignment by the inventors. The assignment was recorded at Reel 012649, Frame 0909, on February 25, 2002.

III. STATEMENT OF RELATED APPEALS AND INTERFERENCES

There are no known related applications, patents, judicial proceedings, appeals, and/or interferences that are related to, will directly effect, be directly effected by, or have a bearing on the Board's decision in this appeal.

IV. STATUS OF CLAIMS

Each of claims 21-47, all of the claims pending in the present application, were rejected and their respective rejections are the subject of this appeal. Claims 30-47 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claims 21-47 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 21-47 were rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. There were no rejections on the basis of alleged prior art.

Claims 1-20 were previously cancelled.

V. STATUS OF AMENDMENTS

Claims 21-47 each stand as they were previously presented prior to the Office Action. No amendments have been submitted or entered since that time. Thus, claims 21-47 are pending and their respective rejections are appealed. There was also no Response filed after the Office Action, until the Notice of Appeal and Pre-Appeal Brief Request for Review were filed. Claims 1-20 had been previously cancelled.

VI. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 21, upon which claims 22-29 depend, is directed to a method (*see, for example*, page 1, line 35 of the present specification, all page/line references in this section of the brief refer to the present application). The method includes:

providing a plurality of selected modules (*see, for example*, Figure 3, elements 31-39, and page 6, line 6, as well as page 5, lines 31-32);

configuring the selected modules to correspond to technical solutions usable in network layers (*see, for example*, Figure 1, elements 1-5, and page 3, lines 1-2);

connecting the selected modules hierarchically to form a hierarchic layered structure (*see, for example*, Figure 1, elements 1-5, as arranged, and page 4, line 32, to page 5, line 5);

configuring the selected modules to provide resources to adjacent modules in the hierarchic layered structure (*see, for example*, Figure 1, items 11-12, and page 5, lines 8-23);

configuring the selected modules substitutably (*see, for example*, page 3, lines 17-19, as well as Figure 3);

modeling a network based on the selected modules (*see, for example*, page 5, lines 33-36); and

providing a comparison of different technical solutions to a user based on the modeling (*see, for example*, page 7, lines 3-4, as well as Figures 2a and 2b).

Independent claim 30, upon which claims 31-38 depend, is directed to a network modeling tool (*see, for example*, page 1, line 35, and to provide a particular example, “an arrangement.”). The tool includes (most of the features discussed below are discussed in the specification functionally, with the corresponding structure being, for example, the “arrangement” identified above):

provision means for providing (*see, for example*, Figure 3, elements 31-39, and page 6, line 6, as well as page 5, lines 31-32) a plurality of selected module means for corresponding to technical solutions usable in network layers (*see, for example*, Figure 1, elements 1-5, and page 3, lines 1-2);

connection means for connecting the selected module means hierarchically (*see, for example*, Figure 1, items 11-12, and page 5, lines 8-23) to form a hierarchic layered structure, wherein the selected module means are configured to provide resources to adjacent modules in the hierarchic layered structure and are configured substitutably (*see, for example*, Figure 1, items 11-12, and page 5, lines 8-23);

modeling means for modeling a network based on the selected module means (*see, for example*, page 5, lines 33-36); and

output means for providing a comparison of the different technical solutions to a user based on the modeling (*see, for example*, page 7, lines 3-4, as well as Figures 2a and 2b).

Independent claim 39, upon which claim 40-47 depend, is directed to a network

modeling tool (*see, for example*, page 1, line 35). The tool includes:

a provision element (*see, for example*, Figure 3, elements 31-39, and page 6, line 6, as well as page 5, lines 31-32) configured to provide a plurality of selected modules configured to correspond to technical solutions usable in network layers (*see, for example*, Figure 1, elements 1-5, and page 3, lines 1-2);

a connection element configured to connect the selected modules hierarchically to form a hierarchic layered structure (*see, for example*, Figure 1, items 11-12, and page 5, lines 8-23), wherein the selected modules are configured to provide resources to adjacent modules in the hierarchic layered structure and are configured substitutably (*see, for example*, Figure 1, items 11-12, and page 5, lines 8-23);

a modeling element configured to model a network based on the selected modules (*see, for example*, page 5, lines 33-36); and

an output element configured to provide a comparison of the different technical solutions to a user based on a result of the modeling element (*see, for example*, page 7, lines 3-4, as well as Figures 2a and 2b).

Although some dependent claims recite “means-plus-function” features, none of the dependent claims is being argued separately, and consequently 37 CFR 41.37(c)(1)(5) does not require identification of corresponding structure in the specification.

VII. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are as follows: the rejection of claims 30-47 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement; the rejection of claims 21-47 under 35 U.S.C. 112, second paragraph, as being indefinite; and the rejection of claims 21-47 under 35 U.S.C. 101 as being directed to non-statutory subject matter.

VIII. ARGUMENT

Claims 21-47 are currently pending in the application, of which claims 21, 30, and 39 are independent claims. Appellants respectfully request that the rejections of claims 21-47 be reversed.

The Office Action did not reject any of the claims individually. Although the claims may be separately patentable, the rejections have been responded to as presented. Appellants reserve the right to argue the claims separately if a separate rejection of any of the claims is made.

1. Rejection of claims 30-47, under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 30-47 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action asserted that the claims recite subject matter that was not described in such a way as to show that the inventor(s) possessed the invention at the time the application was filed. Specifically, the Office Action asserted that “The specification does not disclose a software tool to be performed [sic] the functions of the claims.” Appellants respectfully request that this rejection be reversed. For the purposes of this rejection, independent claim 39 is a suitable representative claim.

As an initial matter, claims 30-47 do not specifically recite “a **software** tool,” but rather “a network modeling tool” (see the preambles of claims 30 and 39, upon which the

remainder of the rejected claims depend). Thus, it is not necessary that it be shown that “a **software** tool” was possessed, but only that “a network modeling tool” was possessed.

Furthermore, possession of “a network modeling tool” can be clearly seen at least from, for example, page 1, lines 35-36, of the present application. Although that passage does not use the particular expression, “a network modeling tool,” the passage states: “The invention offers **an arrangement** and a method **to form a communication network.**” One of ordinary skill in the art would recognize that such an arrangement could be referred to as a network modeling tool, particularly in view of the discussion following the identified passage (*e.g.* at page 2, lines 1-15, of the present application) in which various “modules” and the like are mentioned in the implementation of an embodiment of the present invention. *See also, for further example*, page 2, lines 27-30, of the present application (“the inventive arrangement comprises several modules”). Thus, “a network modeling tool” was a concept that was clearly possessed by the inventors at the time the application was filed, and consequently the rejection should be reversed.

The “Response to Arguments” section of the Office Action argues that “arrangement does not means [sic] a software tool because the specification does not disclose arrangement being a software tool.” This argument does not support the rejection, because in addition to the literal disclosure of the specification (*i.e.* in addition to the words used to describe the invention), patent applicants are entitled to rely on the understanding of one of ordinary skill in the art. One of ordinary skill in the art would have understood the

disclosed “arrangement” to include (to provide two examples) a general purpose computer programmed to execute software modules, or an application specific integrated circuit (ASIC) having a modular design, in view of the remaining disclosure in the application.

There is no requirement that the term “tool” be used in the specification in order to fully comply with 35 U.S.C. 112. Section 112 states that the “specification shall contain a written description of the invention.” 35 U.S.C. §112. The Federal Circuit has held that “[t]o fulfill the written description requirement, the patent specification must describe an invention in sufficient detail that one skilled in the art can clearly conclude that the inventor invented what is claimed.” *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1364, 67 USPQ2d 1876, 1885 (Fed. Cir. 2003). The Federal Circuit has explained, however, that “[t]he disclosure as originally filed does not ... have to provide *in haec verba* support for the claimed subject matter at issue.” *Id.* See additionally, *Kao Corp. v. Unilever United States, Inc.*, 78 USPQ2d 1257, 1260 (Fed. Circ. 2006). In other words, there is no requirement that the precise language used in the claims appear in the specification, in order to satisfy the written description requirement. The concept claimed is fully supported in the specification, in such a way that one of ordinary skill in the art could clearly conclude that the inventor invented what is claimed. Therefore, the claims fully comply with the written description requirement, including the “possession” aspect of that requirement.

The “Response to Arguments” section continued by asserting that the specification “just discloses that manual work often use [sic] to handle the process and expansion of a

network in parallel.” That is an incorrect description, because it is an incomplete description of what the specification indicates. Nevertheless, regardless of the inaccuracy of the summary, the fact of the matter is that the specification contrasts the invention with manual work. The Office Action does not appear to have contested that fact, and consequently one of ordinary skill in the art would clearly recognize that the inventors invented something other than manual work, namely a tool.

The “Response to Arguments” section further continued by asserting that “However, no single manual work to handle both the process and expansion of a network.” Although this assertion is not a sentence, as best understood the Office Action was attempting to assert that the specification is contrasting one manual process (the invention under the Office Action’s interpretation) with two manual processes (the previous situation under the Office Action’s interpretation). This interpretation is clearly erroneous. The specification actually states: “Still, there is no single, suitable arrangement to handle both the process and the expansion of the expansion of a network.” (emphasis added) (page 1, lines 28-30). Accordingly, one of ordinary skill in the art would not conclude that the invention was merely the simplification of two manual processes to one manual process.

The “Response to Arguments” section finally concluded, “It clearly does not disclose a software tool to implement the function of the claims.” For the reasons set forth above, this conclusion is demonstrably erroneous. The only thing that the Office Action has demonstrated is that the term “software tool” is not used; but the lack of usage of the

term “software tool” in the original specification is not legally significant. Thus, Appellants respectfully request that the rejection be reversed as unsupported.

2. Rejection of claims 21-47, under 35 U.S.C. 112, second paragraph, as allegedly indefinite.

Claims 21-47 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The Office Action stated that “technical solutions” is “vague and indefinite because it’s unclear what it’s constituted for [sic],” and that “providing a comparison of different technical solutions to a user based on the modeling” is “vague and indefinite because it’s unclear what a comparison of different technical solutions is provided to a user [sic].” Appellants respectfully request that this rejection be reversed. For the purposes of this ground of rejection, claim 21 is a suitable representative claim.

As explained in the response filed June 20, 2007, the term “technical solutions” is described in the specification at, for example, page 3, lines 1-8. The fact that the term “technical solutions” is a broad term does not imply that it is an indefinite term.

One of ordinary skill in the art would understand the metes and bounds of the invention conveyed by the term “technical solutions.” The term “technical solutions” is composed of two words, “technical” and “solutions.” The word “technical” is an adjective that describes the type of solutions, and specifies that those solutions are in the technological arts. The word “solutions” is a plural noun that describes the resolution of a problem. Accordingly, one of ordinary skill in the art would understand that “technical

solutions” refers to technological resolutions to problems, and would, therefore, understand the metes and bounds of the invention.

Likewise, the concept of “providing a comparison of different technical solutions to a user based on the modeling” is discussed in the specification of the present invention at page 5, line 24, to page 6, line 5. In view of the discussion of that concept provided therein, one of ordinary skill in the art would understand that “providing a comparison of different technical solutions to a user based on the modeling” refers to the presentation of, for example, a respective “rough picture of the transmission needs” or a respective “more detailed picture” of the impact on network formation presented by respective technical solutions, and would, therefore, understand the metes and bounds of the invention. Thus, Appellants respectfully request that the rejection be reversed as improper.

3. Rejection of claims 21-47, under 35 U.S.C. 101, as allegedly directed to non-statutory subject matter.

Claims 21-47 were rejected under 35 U.S.C. 101 as directed to non-statutory subject matter, because the claimed invention is allegedly “not limited to a practical application.” Appellants respectfully traverse this rejection as clearly improper.

The Office Action stated that “Viewed as a whole, the claimed invention merely expresses a method, tool and system for providing a comparison of a value to a user therefore, the claimed invention is not practically applied.” This statement is self-contradictory, incorrect, and legally irrelevant.

The Office Action's statement is self-contradictory, because "providing a comparison of a value to a user" is something that is a practical application *per se*. In *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 47 USPQ2d 1596, at 1601-02 (Fed. Cir. 1998), the Federal Circuit indicated that the transformation of data to produce a share price was a practical application of a mathematical algorithm because it produces the share price. Providing a comparison of a value to a user would be at least the same – in terms of qualifying as statutory subject matter – as providing a value (such a share price) alone to a user. Indeed, if providing a value alone is patentable (as *State Street* established), then providing a comparison of a value is even more clearly patentable. Thus, for this independent reason, the rejection should be reversed, because it contradicts itself.

The Office Action's statement is incorrect (particularly with respect to the word "merely") because the claimed invention does more than just provide a comparison of a value to a user, the claimed invention as recited in claim 21, for example, provides a comparison of different technical solutions to a user based on network modeling. The Office Action's comment that such a view is a whole view ("Viewed as a whole") consequently is clearly erroneous. Thus, for this independent reason, the rejection should be reversed, because the Office Action has not truly viewed the invention as a whole in asserting that it "merely" does what the Office Action stated.

Finally, the Office Action's comment is legally irrelevant. Whether or not "the claimed invention is practically applied" does not decide whether the claimed invention

recites statutory subject matter. Instead, the question is whether the claimed invention is useful – not whether it is “limited to a practical application.” The claimed invention is useful, a fact that the Office Action in no way disputed. Consequently, the claimed invention clearly and unmistakably qualifies as statutory subject matter under 35 U.S.C. 101, and the rejection should be reversed.

It should be noted that some inventions might arguably be useful, but yet fall within a judicial exception. Nevertheless, except as discussed below, none of the judicial exceptions have been identified as relevant by the Office Action, and there is consequently no reason of record to suppose that any of the claims of the present application fall within a judicial exception to the general principle that “Congress intended statutory subject matter to “include anything under the sun that is made by man.” S. Rep. No. 1979, 82d Cong., 2d Sess., 5 (1952), H.R. Rep. No. 1923, 82d Cong., Sec. 2d Sess., 6 (1952).” *Diamond v. Diehr*, 450 US 175, 209 USPQ 1, 6 (1981). Thus, Appellants respectfully request that this rejection be reversed.

In the “Response to Arguments” section, the Office Action further argued that “the claims are an abstract idea....” This would – on its face – seem to place the claims within a judicial exception. However, the assertion that the claims are “an abstract idea” is clearly incorrect.

A “tool” as recited in claims 30-47 is plainly not an “abstract idea,” because a tool has real-world existence and real-world value. Furthermore, a method that involves

providing information to a user (such as claims 21-29) is also plainly not an abstract idea because the provision of information to a user is a real-world interaction that has real-world value. Accordingly, the assertion that claims are “an abstract idea” is clearly erroneous.

The “Response to Arguments” section of the Office Action attempted to justify the statement that the claims are “an abstract idea” using the rationale that “they just compared [sic] the technical solutions and provider [sic] the different result to user [sic].” This rationale cannot support the rejection.

There is simply no connection between the proffered justification and the concept of an “abstract idea.” The fact that method and tools of the present invention provide results to users clearly gives them real-world value and differentiates them from mere abstract ideas. Accordingly, the justification for the rejection is clearly improper and the rejection should be reversed.

A. Claim 21

As noted above, claim 21 recites statutory subject matter in the form of a method. This subsection is provided to ensure that claim 21 is treated separately from claims 30 and 39, for consideration under this ground of rejection, since the basis upon which claim 21 is statutory subject matter is slightly different from that upon which claims 30 and 39 are statutory subject matter. The rejection of claim 21 should be reversed for the reasons set forth above.

B. Claims 30 and 39

As noted above, claims 30 and 39 recite statutory subject matter in the form of a tool. This subsection is likewise provided to ensure that claims 30 and 39 are treated separately from claim 21, for consideration under this ground of rejection, since the basis upon which claim 21 is statutory subject matter is slightly different from that upon which claims 30 and 39 are statutory subject matter. For the purposes of this subsection, claim 39 is a suitable representative claim. Thus, the rejection of claims 30 and 39 should be reversed for the reasons set forth above.

C. Claims 22-29, 31-38, and 40-47

Claims 22-29, 31-38, and 40-47 depend respectively from, and further limit claims 21, 30, and 39. Appellants reserve the right to argue each of claims 22-29, 31-38, and 40-47 separately, if the Examiner's Answer (or the Honorable Board) determines separate reasons for rejecting any of those claims. However, since none of claims 22-29, 31-38, and 40-47 were specifically addressed in the Office Action, and since the burden is on the Examiner to establish unpatentability of the claims, not on patent applicants to establish patentability, therefore no further comments regarding claims 22-29, 31-38, and 40-47 are necessary in view of the rejection as presented. Claims 21 and 39 respectively, for the claims that depend from claims 21 and 30/39, are suitable representative claims. Thus, the rejection of claims 22-29, 31-38, and 40-47 should be reversed for the reasons set forth above.


IX. CONCLUSION

For the reasons set forth above, it is respectfully submitted that each of claims 21-47 recites subject matter that clearly meets the requirements of 35 U.S.C. 101 and 112. This final rejection being in error, therefore, it is respectfully requested that this honorable Board of Patent Appeals and Interferences reverse the Examiner's decision in this case and indicate the allowability of application claims 21-47.

In the event that this paper is not being timely filed, Appellants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees which may be due with respect to this paper may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

SQUIRE, SANDERS & DEMPSEY LLP


Peter Flanagan
Attorney for Appellants
Registration No. 58,178

Atty. Docket No.: 059643.00139
8000 Towers Crescent Drive, 14th Floor
Tysons Corner, VA 22182-2700
Tel: (703) 720-7800
Fax (703) 720-7802
PCF:mmi

Encls: Appendix 1 – Claims; Appendix 2 – Evidence; Appendix 3 - Related Proceedings

APPENDIX 1

CLAIMS APPENDIX

21. (Previously Presented) A method, comprising:

providing a plurality of selected modules;

configuring the selected modules to correspond to technical solutions usable in network layers;

connecting the selected modules hierarchically to form a hierarchic layered structure;

configuring the selected modules to provide resources to adjacent modules in the hierarchic layered structure;

configuring the selected modules substitutably;

modeling a network based on the selected modules; and

providing a comparison of different technical solutions to a user based on the modeling.

22. (Previously Presented) The method of claim 21, further comprising:

configuring a technical solution of at least one module of the selected modules to be usable in more than one layer of the layered structure.

23. (Previously Presented) The method of claim 21, further comprising:
performing routing of the layered structure in one module, of the selected modules,
at a time such that routes in the adjacent module hierarchically above a given module are
found in the given module.

24. (Previously Presented) The method of claim 21, further comprising:
configuring the technical solution of at least one module of the selected modules to
comprise at least one of cellular, asynchronous transfer mode, plesiochronous digital
hierarchy, synchronous digital hierarchy, internet protocol, wavelength-division
multiplexing, or physical conduits.

25. (Previously Presented) The method of claim 21, further comprising:
configuring at least one module of the selected modules to comprise at least one of
a conduit module, a line system module, a virtual container-4 module, a 2Mbit/s module, an
asynchronous transfer mode link module, an asynchronous transfer mode virtual path
module, an asynchronous transfer mode virtual circuit module, an internet protocol module,
a wavelength-division multiplexing module, or a cellular module.

26. (Previously Presented) The method of claim 21, wherein the modeling the
network comprises modeling nodes and links between the nodes.

27. (Previously Presented) The method of claim 26, further comprising:
configuring types of the nodes and links to be specific for a respective layer.

28. (Previously Presented) The method of claim 21, further comprising:
configuring the selected modules to add at least one of a node or link to an adjacent module hierarchically above the given module, to an adjacent module hierarchically below the given module, or both to the adjacent module hierarchically above the given module and to the adjacent module hierarchically below the given module.

29. (Previously Presented) The method of claim 21, further comprising:
configuring the selected modules to operate based on module-specific calculation and routing methods.

30. (Previously Presented) A network modeling tool, comprising:
provision means for providing a plurality of selected module means for corresponding to technical solutions usable in network layers;
connection means for connecting the selected module means hierarchically to form a hierarchic layered structure, wherein the selected module means are configured to provide resources to adjacent modules in the hierarchic layered structure and are configured

substitutably;

modeling means for modeling a network based on the selected module means; and

output means for providing a comparison of the different technical solutions to a user based on the modeling.

31. (Previously Presented) The network modeling tool of claim 30, wherein a technical solution of at least one module means of the selected module means is configured to be usable in more than one layer of the layered structure.

32. (Previously Presented) The network modeling tool of claim 30, further comprising:

routing means for performing routing of the layered structure in one module means at a time, of the selected module means, such that routes in an adjacent module means hierarchically above a given module means are found in the given module means.

33. (Previously Presented) The network modeling tool of claim 30, wherein the technical solution of at least one module means of the selected module means comprises at least one of cellular, asynchronous transfer mode, plesiochronous digital hierarchy, synchronous digital hierarchy, internet protocol, wavelength-division multiplexing, or physical conduits.

34. (Previously Presented) The network modeling tool of claim 30, wherein at least one module means of the selected module means comprises at least one of a conduit module, a line system module, a virtual container-4 module, a 2Mbit/s module, an asynchronous transfer mode link module, an asynchronous transfer mode virtual path module, an asynchronous transfer mode virtual circuit module, an internet protocol module, a wavelength-division multiplexing module, or a cellular module.

35. (Previously Presented) The network modeling tool of claim 30, wherein the modeling means is configured to model nodes and links between the nodes.

36. (Previously Presented) The network modeling tool of claim 35, wherein types of the nodes and links are specific for a respective layer.

37. (Previously Presented) The network modeling tool of claim 30, wherein the selected module means are configured to add at least one of a node or link to an adjacent module means hierarchically above a given module means, to an adjacent module hierarchically below the given module means, or both to the adjacent module means hierarchically above the given module means and to the adjacent module means hierarchically below the given module means.

38. (Previously Presented) The network modeling tool of claim 30, wherein the selected module means are configured to operate based on module-specific calculation and routing methods.

39. (Previously Presented) A network modeling tool, comprising:

- a provision element configured to provide a plurality of selected modules configured to correspond to technical solutions usable in network layers;
- a connection element configured to connect the selected modules hierarchically to form a hierarchic layered structure, wherein the selected modules are configured to provide resources to adjacent modules in the hierarchic layered structure and are configured substitutably;
- a modeling element configured to model a network based on the selected modules;

and

- an output element configured to provide a comparison of the different technical solutions to a user based on a result of the modeling element.

40. (Previously Presented) The network modeling tool of claim 39, wherein the technical solution of at least one module of the selected modules is configured to be usable in more than one layer of the layered structure.

41. (Previously Presented) The network modeling tool of claim 39, further comprising:

a routing element configured to perform routing of the layered structure in one module at a time, of the selected modules, such that routes in an adjacent module hierarchically above a given module are found in the given module.

42. (Previously Presented) The network modeling tool of claim 39, wherein the technical solution of at least one module of the selected modules comprises at least one of cellular, asynchronous transfer mode, plesiochronous digital hierarchy, synchronous digital hierarchy, internet protocol, wavelength-division multiplexing, or physical conduits.

43. (Previously Presented) The network modeling tool of claim 39, wherein at least one module of the selected modules comprises at least one of a conduit module, a line system module, a virtual container-4 module, a 2Mbit/s module, an asynchronous transfer mode link module, an asynchronous transfer mode virtual path module, an asynchronous transfer mode virtual circuit module, an internet protocol module, a wavelength-division multiplexing module, or a cellular module.

44. (Previously Presented) The network modeling tool of claim 39, wherein the

modeling element is configured to model nodes and links between the nodes.

45. (Previously Presented) The network modeling tool of claim 44, wherein types of the nodes and links are specific for a respective layer.

46. (Previously Presented) The network modeling tool of claim 39, wherein the selected modules are configured to add at least one of a node or link to an adjacent module hierarchically above a given module, to an adjacent module hierarchically below the given module, or both to the adjacent module hierarchically above the given module and to the adjacent module hierarchically below the given module.

47. (Previously Presented) The network modeling tool of claim 39, wherein the selected modules are configured to operate based on module-specific calculation and routing methods.

APPENDIX 2

EVIDENCE APPENDIX

No evidence under section 37 C.F.R. 1.130, 1.131, or 1.132 has been entered or will be relied upon by Appellants in this appeal.

APPENDIX 3

RELATED PROCEEDINGS APPENDIX

No decisions of the Board or of any court have been identified under 37 C.F.R.

§41.37(c)(1)(ii).